What is claimed is:

1. A light modulation medium comprising a light modulation element having a pair of substrates and a plurality of light modulation layers arranged between the substrates to form a multilayer structure and made of cholesteric liquid crystal adapted to change the electro-optic characteristics in response to application of a predetermined electric field,

wherein the ratio of the threshold electric field at which the liquid crystal orientation is moved from a planar state to a focal conic state of a first light modulation layer of the light modulation element to that of a second light modulation layer is not less than 0.3 and the ratio of the dielectric constant in a planar state of liquid crystal orientation of the first light modulation layer to that of the second light modulation layer is not less than 4.

2. The light modulation medium according to claim 1, wherein

the cholesteric liquid crystal of at least one of the plurality of light modulation layers is a mixture of a liquid crystal compound showing positive dielectric constant anisotropy and a liquid crystal compound showing negative dielectric constant anisotropy and shows positive dielectric constant anisotropy.

3. The light modulation medium according to claim 2, wherein

the liquid crystal compound showing negative dielectric constant anisotropy has polar groups extending

in the direction of the short axis of the liquid crystal molecule and at least one of the polar groups extending in the direction of the short axis is a cyano group.

4. The light modulation medium according to claim 1, wherein

the cholesteric liquid crystal of each of the plurality of light modulation layers selectively reflects light of a particular wavelength range out of incident light and the cholesteric liquid crystals of the light modulation layers have respective wavelength ranges that are different from each other.

5. The light modulation medium according to claim 1, wherein

the pair of substrates carry respective electrodes formed on the inner surfaces thereof; and

the plurality of light modulation layers are arranged between the electrodes to form a multilayer structure.

6. The light modulation medium according to claim 5, wherein

the light modulation element is formed by arranging the plurality of light modulation layers and a photoconductive layer adapted to change its electric resistance in response to irradiation of light between the electrodes to produce a multilayer structure.

7. A light modulation method of preparing a light modulation medium that includes a light modulation element having a pair of substrates carrying respective electrodes formed on the inner surfaces thereof and a plurality of light modulation layers arranged between the substrates to form

a multilayer structure and made of cholesteric liquid crystal adapted to change the liquid crystal orientation in response to application of a predetermined electric field, comprising the steps of:

preparing the light modulation medium in which the ratio of the threshold electric field at which the liquid crystal orientation is moved from a planar state to a focal conic state of a first light modulation layer of the plurality of light modulation layers to that of a second light modulation layer is not less than 0.3 and the ratio of the dielectric constant in a planar state of liquid crystal orientation of the first light modulation layer to that of the second light modulation layer is not less than 4; and

causing the light modulation medium to display a color tone corresponding to the combination of electro-optic characteristics of the plurality of light modulation layers by sequentially applying a plurality of voltages to change the liquid crystal orientations of the plurality of light modulation layers between the electrodes and moving each of the light modulation layers to a planar or focal conic state.

8. The light modulation method according to claim 7, wherein

the cholesteric liquid crystal of each of the plurality of light modulation layers selectively reflects light of a particular wavelength range out of incident light and the cholesteric liquid crystals of the light modulation layers have respective wavelength ranges that are different from each other.

9. The light modulation method according to claim

7, wherein

the light modulation medium is formed by arranging the plurality of light modulation layers and a photoconductive layer adapted to change its electric resistance in response to irradiation of light between the electrodes to produce a multilayer structure; and

wherein the light modulation medium displays a color tone corresponding to the combination of the electro-optic characteristics of the plurality of light modulation layers by irradiating light to the photoconductive layer at a predetermined rate as a function of application of the plurality of voltages between the electrodes.

10. The light modulation method according to claim 9, wherein

the light modulation medium comprises another light modulation element formed by arranging at least a light modulation layer and a photoconductive layer between a pair of electrodes in addition to the light modulation element and the photoconductive layers are irradiated with respective beams of light having different wavelength ranges.